

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
<b>RDF</b>				
Case 1	<p>@prefix ex: &lt;http://example.com/&gt; . ex:alice ex:meets ex:bob .</p>	<p><math>N = \{n_1, n_2\}</math>  <math>E = \{e_1\}</math>  <math>\forall i \in \{1, 2\}; lbl(n_i) = \text{"Resource"}</math>  <math>edge(e_1) = (n_1, n_2)</math>  <math>\sigma(n_1) = \{\text{"url", "http://example.com/alice"}\}</math>  <math>\sigma(n_2) = \{\text{"url", "http://example.com/bob"}\}</math>  <math>\sigma(e_1) = \{\text{"type", "localName(http://example.com/meets)}\}</math></p>	<p><math>N = \{n_1, n_2\}</math>  <math>E = \{e_1\}</math>  <math>edge(e_1) = (n_1, n_2)</math>  <math>lbl(e_1) = \{\text{"http://example.com/meets"}\}</math>  <math>\sigma(n_1) = \{\{\text{"Kind", "IRI"}, (\text{"IRI", "http://example.com/alice"})\}\}</math>  <math>\sigma(n_2) = \{\{\text{"Kind", "IRI"}, (\text{"IRI", "http://example.com/bob"})\}\}</math></p>	<p><math>N = \{n_1, n_2\}</math>  <math>E = \{e_1\}</math>  <math>edge(e_1) = (n_1, n_2)</math>  <math>\forall i \in \{1, 2\}; lbl(n_i) = \text{"Resource"}</math>  <math>lbl(e_1) = \{\text{"ObjectProperty"}\}</math>  <math>\sigma(n_1) = \{\{\text{"iri", "http://example.com/alice"}\}\}</math>  <math>\sigma(n_2) = \{\{\text{"iri", "http://example.com/bob"}\}\}</math>  <math>\sigma(e_1) = \{\{\text{"type", "http://example.com/meets"}\}\}</math></p>

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 2.1	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>ex:Sam ex:mentor ex:Lee.</p> <p>ex:mentor</p> <p>rdfs:label "project supervisor".</p> <p>ex:mentor</p> <p>ex:name "mentor's name".</p>	$N = \{ n_1, n_2, n_3 \}$ $E = \{ e_1 \}$ $edge(e_1) = (n_1, n_2)$ $\forall i \in \{1, 2, 3\}; lbl(n_i) = \{ \text{"Resource"} \}$ $\sigma(n_1) = \{ \text{"url", "http://example.com/Sam"} \}$ $\sigma(n_2) = \{ \text{"url", "http://example.com/Lee"} \}$ $\sigma(n_3) = \{ \text{"url", "http://example.com/mentor"} \}$ $\sigma(n_3) = \{ \text{"name", "mentor's name"}, \text{"label", "project supervisor"} \}$ $\sigma(e_1) = \{ \text{"type", "localName("http://example.com/mentor")"} \}$	$N = \{ n_1, n_2, n_3, n_4, n_5 \}$ $E = \{ e_1, e_2, e_3 \}$ $edge(e_1) = (n_3, n_5)$ $edge(e_2) = (n_1, n_2)$ $edge(e_3) = (n_3, n_4)$ $lbl(e_1) = \{ \text{"http://example.com/name"} \}$ $lbl(e_2) = \{ \text{"http://example.com/mentor"} \}$ $lbl(e_3) = \{ \text{"http://www.w3.org/2000/01/rdf-schema#label"} \}$ $\sigma(n_1) = \{ \text{"Kind", "IRI"}, \text{"IRI", "http://example.com/Sam"} \}$ $\sigma(n_2) = \{ \text{"Kind", "IRI"}, \text{"IRI", "http://example.com/Lee"} \}$ $\sigma(n_3) = \{ \text{"Kind", "IRI"}, \text{"IRI", "http://example.com/mentor"} \}$ $\sigma(n_4) = \{ \text{"Kind", "Literal"}, \text{"Literal", "project supervisor"} \}$ $\sigma(n_5) = \{ \text{"Kind", "Literal"}, \text{"Literal", "mentor's name"} \}$	$N = \{ n_1, n_2, n_3, n_4, n_5 \}$ $E = \{ e_1, e_2, e_3 \}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_3, n_4)$ $edge(e_3) = (n_3, n_5)$ $\forall i \in \{1, 2, 3\}; lbl(n_i) = \{ \text{"Resource"} \}$ $\forall i \in \{4, 5\}; lbl(n_i) = \{ \text{"Literal"} \}$ $lbl(e_1) = \{ \text{"ObjectProperty"} \}$ $\forall i \in \{2, 3\}; lbl(e_i) = \{ \text{"DatatypeProperty"} \}$ $\sigma(n_1) = \{ \text{"iri", "http://example.com/Sam"} \}$ $\sigma(n_2) = \{ \text{"iri", "http://example.com/Lee"} \}$ $\sigma(n_3) = \{ \text{"iri", "http://example.com/mentor"} \}$ $\sigma(n_4) = \{ \text{"value", "project supervisor"} \}$ $\sigma(n_5) = \{ \text{"value", "mentor's name"} \}$ $\sigma(e_1) = \{ \text{"type", "http://example.com/mentor"} \}$ $\sigma(e_2) = \{ \text{"type", "http://www.w3.org/2000/01/rdf-schema#label"} \}$ $\sigma(e_3) = \{ \text{"type", "http://example.com/name"} \}$

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 2.2	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>ex:Martin ex:mentorJoe ex:Joe.</p> <p>ex:mentorJoe ex:alias ex:teacher .</p>	$N = \{n_1, n_2, n_3, n_4\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_3, n_4)$ $\forall i \in \{1, 2, 3, 4\}; lbl(n_i) = \{"Resource"\}$ $\sigma(n_1) = \{"url",$ $\quad "http://example.com/Martin"\}$ $\sigma(n_2) = \{"url",$ $\quad "http://example.com/Joe"\}$ $\sigma(n_3) = \{"url",$ $\quad "http://example.com/mentorJoe"\}$ $\sigma(n_4) = \{"url",$ $\quad "http://example.com/teacher"\}$ $\sigma(e_1) = \{"type",$ $\quad "localName(http://example.com/mentorJoe)"\}$ $\sigma(e_2) = \{"type",$ $\quad "localName(http://example.com/alias)"\}$	$N = \{n_1, n_2, n_3, n_4\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_3, n_4)$ $edge(e_2) = (n_1, n_2)$ $lbl(e_1) = \{"http://example.com/alias"\}$ $lbl(e_2) = \{"http://example.com/mentorJoe"\}$ $\sigma(n_1) = \{"Kind", "IRI", ("IRI",$ $\quad "http://example.com/Martin")\}$ $\sigma(n_2) = \{"Kind", "IRI", ("IRI",$ $\quad "http://example.com/Joe")\}$ $\sigma(n_3) = \{"Kind", "IRI", ("IRI",$ $\quad "http://example.com/mentorJoe")\}$ $\sigma(n_4) = \{"Kind", "IRI", ("IRI",$ $\quad "http://example.com/Teacher")\}$	$N = \{n_1, n_2, n_3, n_4\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_3, n_4)$ $\forall i \in \{1, 2, 3, 4\}; lbl(n_i) = \{"Resource"\}$ $\forall i \in \{1, 2\}; lbl(e_i) = \{"ObjectProperty"\}$ $\sigma(n_1) = \{"iri",$ $\quad "http://example.com/Martin"\}$ $\sigma(n_2) = \{"iri",$ $\quad "http://example.com/Joe"\}$ $\sigma(n_3) = \{"iri",$ $\quad "http://example.com/mentorJoe"\}$ $\sigma(n_4) = \{"iri",$ $\quad "http://example.com/Teacher"\}$ $\sigma(e_1) = \{"type",$ $\quad "http://example.com/mentorJoe"\}$ $\sigma(e_2) = \{"type", "http://example.com/alias"\}$

	<b>Triples</b>	<b>Neosemantics</b>	<b>RDF-Star Tools</b>	<b>RDF2PG</b>
Case 2.3	<p>@prefix rdfs: &lt;http://www.w3.org/2000/01/rdf-schema#&gt; . @prefix ex: &lt;http://example.com/&gt; . ex:Jan ex:supervise ex:Leo. ex:supervise rdfs:subPropertyOf ex:administer .</p>	<p><math>N = \{n_1, n_2, n_3, n_4\}</math>  <math>E = \{e_1, e_2\}</math>  <math>edge(e_1) = (n_1, n_2)</math>  <math>edge(e_2) = (n_3, n_4)</math>  <math>\forall i \in \{1, 2, 3, 4\}; lbl(n_i) = \{"Resource"\}</math>  <math>\sigma(n_1) = \{"url", "http://example.com/Jan"\}</math>  <math>\sigma(n_2) = \{"url", "http://example.com/Leo"\}</math>  <math>\sigma(n_3) = \{"url", "http://example.com/supervise"\}</math>  <math>\sigma(n_4) = \{"url", "http://example.com/administer"\}</math>  <math>\sigma(e_1) = \{"type", "localName(http://example.com/supervise)"\}</math>  <math>\sigma(e_2) = \{"type", "localName(http://www.w3.org/2000/01/rdf-schema#subPropertyOf)"\}</math></p>	<p><math>N = \{n_1, n_2, n_3, n_4\}</math>  <math>E = \{e_1, e_2\}</math>  <math>edge(e_1) = (n_3, n_4)</math>  <math>edge(e_2) = (n_1, n_2)</math>  <math>lbl(e_1) = "http://www.w3.org/2000/01/rdf-schema#subPropertyOf"</math>  <math>lbl(e_2) = "http://example.com/supervise"</math>  <math>\sigma(n_1) = \{"Kind", "IRI", ("IRI", "http://example.com/Jan")\}</math>  <math>\sigma(n_2) = \{"Kind", "IRI", ("IRI", "http://example.com/Leo")\}</math>  <math>\sigma(n_3) = \{"Kind", "IRI", ("IRI", "http://example.com/supervise")\}</math>  <math>\sigma(n_4) = \{"Kind", "IRI", ("IRI", "http://example.com/administer")\}</math></p>	<p><math>N = \{n_1, n_2, n_3, n_4\}</math>  <math>E = \{e_1, e_2\}</math>  <math>edge(e_1) = (n_1, n_2)</math>  <math>edge(e_2) = (n_3, n_4)</math>  <math>\forall i \in \{1, 2, 3, 4\}; lbl(n_i) = \{"Resource"\}</math>  <math>\forall i \in \{1, 2\}; lbl(e_i) = \{"ObjectProperty"\}</math>  <math>\sigma(n_1) = \{"iri", "http://example.com/Jan"\}</math>  <math>\sigma(n_2) = \{"iri", "http://example.com/Leo"\}</math>  <math>\sigma(n_3) = \{"iri", "http://example.com/supervise"\}</math>  <math>\sigma(n_4) = \{"iri", "http://example.com/administer"\}</math>  <math>\sigma(e_1) = \{"type", "http://example.com/supervise"\}</math>  <math>\sigma(e_2) = \{"type", "http://www.w3.org/2000/01/rdf-schema#subPropertyOf"\}</math></p>

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 2.4	<pre>@prefix ex: &lt;http://example.com/&gt; . @prefix rdf: &lt;http://www.w3.org/1999/02/22-rdf-syntax-ns#&gt; .  ex:Tom ex:friend ex:Chris. ex:friend rdf:type ex:relation .</pre>	<pre><math>N = \{n_1, n_2, n_3\}</math> <math>E = \{e_1\}</math> <math>edge(e_1) = (n_1, n_2)</math> <math>\forall i \in \{1, 2\}; lbl(n_i) = \{\text{"Resource"}\}</math> <math>lbl(n_3) = \{\text{"Resource"}, \text{"relation"}\}</math> <math>\sigma(n_1) = \{\text{"url"}, \text{"http://example.com/Tom"}\}</math> <math>\sigma(n_2) = \{\text{"url"}, \text{"http://example.com/Chris"}\}</math> <math>\sigma(n_3) = \{\text{"url"}, \text{"http://example.com/friend"}\}</math> <math>\sigma(e_2) = \{\text{"type"}, \text{"localName(http://example.com/friend)}\}</math></pre>	<pre><math>N = \{n_1, n_2, n_3, n_4\}</math> <math>E = \{e_1, e_2\}</math> <math>edge(e_1) = (n_3, n_4)</math> <math>lbl(e_1) = \{\text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#type"}\}</math> <math>edge(e_2) = (n_1, n_2)</math> <math>lbl(e_2) = \{\text{"http://example.com/friend"}\}</math> <math>\sigma(n_1) = \{\text{"Kind"}, \text{"IRI"}, \text{"IRI"}, \text{"http://example.com/Tom"}\}</math> <math>\sigma(n_2) = \{\text{"Kind"}, \text{"IRI"}, \text{"IRI"}, \text{"http://example.com/Chris"}\}</math> <math>\sigma(n_3) = \{\text{"Kind"}, \text{"IRI"}, \text{"IRI"}, \text{"http://example.com/friend"}\}</math> <math>\sigma(n_4) = \{\text{"Kind"}, \text{"IRI"}, \text{"IRI"}, \text{"http://example.com/relation"}\}</math></pre>	<pre><math>N = \{n_1, n_2, n_3, n_4\}</math> <math>E = \{e_1, e_2\}</math> <math>edge(e_1) = \{n_1, n_2\}</math> <math>edge(e_2) = \{n_3, n_4\}</math> <math>\forall i \in \{1, 2\}; lbl(i) = \{\text{"ObjectProperty"}\}</math> <math>\forall i \in \{1, 2, 3, 4\}; lbl(n_i) = \{\text{"Resource"}\}</math> <math>\sigma(n_1) = \{\text{"iri"}, \text{"http://example.com/Tom"}\}</math> <math>\sigma(n_2) = \{\text{"iri"}, \text{"http://example.com/Chris"}\}</math> <math>\sigma(n_3) = \{\text{"iri"}, \text{"http://example.com/friend"}\}</math> <math>\sigma(n_4) = \{\text{"iri"}, \text{"http://example.com/relation"}\}</math> <math>\sigma(e_1) = \{\text{"type"}, \text{"http://example.com/friend"}\}</math> <math>\sigma(e_2) = \{\text{"type"}, \text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#type"}\}</math></pre>

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 3.1	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>ex:book ex:publish_date "1963-03-22"^^xsd:date.</p> <p>ex:book ex:pages "100"^^xsd:integer.</p> <p>ex:book ex:cover 20 .</p> <p>ex:book ex:index "55".</p>	$N = \{n_1\}$ $E = \emptyset$ $lbl(n_1) = \{\text{"Resource"}\}$ $\sigma(n_1) = \{\{\text{"index"}, 55\}, \{\text{"url"}, \text{"http://example.com/book"}\}, \{\text{"pages"}, 100\}, \{\text{"cover"}, 20\}, \{\text{"publish\_date"}, \text{"1963-03-22"}\}\}$	$N = \{n_1, n_2, n_3, n_4, n_5\}$ $E = \{e_1, e_2, e_3, e_4\}$ $edge(e_1) = (n_1, n_5)$ $edge(e_2) = (n_1, n_3)$ $edge(e_3) = (n_1, n_4)$ $edge(e_4) = (n_1, n_2)$ $lbl(e_1) = \{\text{"http://example.com/index"}\}$ $lbl(e_2) = \{\text{"http://example.com/pages"}\}$ $lbl(e_3) = \{\text{"http://example.com/cover"}\}$ $lbl(e_4) = \{\text{"http://example.com/publish\_date"}\}$ $\sigma(n_1) = \{\{\text{"Kind"}, \text{"IRI"}\}, \{\text{"IRI"}, \text{"http://example.com/book"}\}\}$ $\sigma(n_2) = \{\{\text{"Kind"}, \text{"Literal"}\}, \{\text{"Literal"}, 1963-03-22\}, \{\text{"Datatype"}, \text{"http://www.w3.org/2001/XMLSchema\#date"}\}\}$ $\sigma(n_3) = \{\{\text{"Kind"}, \text{"Literal"}\}, \{\text{"Literal"}, 100\}, \{\text{"Datatype"}, \text{"http://www.w3.org/2001/XMLSchema\#integer"}\}\}$ $\sigma(n_4) = \{\{\text{"Kind"}, \text{"Literal"}\}, \{\text{"Literal"}, 20\}, \{\text{"Datatype"}, \text{"http://www.w3.org/2001/XMLSchema\#integer"}\}\}$ $\sigma(n_5) = \{\{\text{"Kind"}, \text{"Literal"}\}, \{\text{"Literal"}, 55\}, \{\text{"Datatype"}, \text{"http://www.w3.org/2001/XMLSchema\#string"}\}\}$	$N = \{n_1, n_2, n_3, n_4, n_5\}$ $E = \{e_1, e_2, e_3, e_4\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $edge(e_3) = (n_1, n_4)$ $edge(e_4) = (n_1, n_5)$ $lbl(n_1) = \{\text{"Resource"}\}$ $\forall i \in \{2, 3, 4\}; lbl(n_{2,3,4}) = \{\text{"Literal"}\}$ $\forall i \in \{1, 2, 3, 4\}; lbl(e_i) = \{\text{"DatatypeProperty"}\}$ $\sigma(n_1) = \{\{\text{"iri"}, \text{"http://example.com/book"}\}\}$ $\sigma(n_2) = \{\{\text{"value"}, \text{"1963-03-22"}\}, \{\text{"type"}, \text{"http://www.w3.org/2001/XMLSchema\#date"}\}\}$ $\sigma(n_3) = \{\{\text{"value"}, \text{"100"}\}, \{\text{"type"}, \text{"http://www.w3.org/2001/XMLSchema\#integer"}\}\}$ $\sigma(n_4) = \{\{\text{"value"}, \text{"20"}\}, \{\text{"type"}, \text{"http://www.w3.org/2001/XMLSchema\#integer"}\}\}$ $\sigma(n_5) = \{\{\text{"value"}, \text{"55"}\}, \{\text{"type"}, \text{"http://www.w3.org/2001/XMLSchema\#string"}\}\}$ $\sigma(e_1) = \{\{\text{"type"}, \text{"http://example.com/publish\_date"}\}\}$ $\sigma(e_2) = \{\{\text{"type"}, \text{"http://example.com/pages"}\}\}$ $\sigma(e_3) = \{\{\text{"type"}, \text{"http://example.com/cover"}\}\}$ $\sigma(e_4) = \{\{\text{"type"}, \text{"http://example.com/index"}\}\}$

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 3.2	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>ex:book ex:Englishtitle "Book"@en.</p> <p>ex:book ex:title "Bog"@da.</p>	<p><math>N = \{n_1\}</math></p> <p><math>E = \emptyset</math></p> <p><math>lbl(n_1) = \{"Resource"\}</math></p> <p><math>\sigma(n_1) = ("Englishtitle", "Book@en"),</math>  <math>\{("url", "http://example.com/book"),</math>  <math>(\text{"title", "Bog@da"})\}</math></p>	<p><math>N = \{n_1, n_2, n_3\}</math></p> <p><math>E = \{e_1, e_2\}</math></p> <p><math>edge(e_1) = (n_1, n_2)</math></p> <p><math>edge(e_2) = (n_1, n_3)</math></p> <p><math>lbl(e_1) = \{"http://example.com/Englishtitle"\}</math></p> <p><math>lbl(e_2) = \{"http://example.com/title"\}</math></p> <p><math>\sigma(n_1) = \{("Kind", "IRI"),</math>  <math>(\text{"IRI", "http://example.com/book"})\}</math></p> <p><math>\sigma(n_2) = \{("Kind", "Literal"),</math>  <math>(\text{"Literal", "Book"}, (\text{"Language", "en"}))\}</math></p> <p><math>\sigma(n_3) = \{("Kind", "Literal"),</math>  <math>(\text{"Literal", "Bog"}, (\text{"Language", "da"}))\}</math></p>	<p><math>N = \{n_1, n_2, n_3\}</math></p> <p><math>E = \{e_1, e_2\}</math></p> <p><math>edge(e_1) = (n_1, n_2)</math></p> <p><math>edge(e_2) = (n_1, n_3)</math></p> <p><math>\forall i \in \{2, 3\}; lbl(n_i) = \{"Literal"\}</math></p> <p><math>\forall i \in \{1, 2\}; lbl(e_i) = \{"DatatypeProperty"\}</math></p> <p><math>\sigma(n_1) = \{("iri", "http://example.com/book")\}</math></p> <p><math>\sigma(n_2) = \{("value", "Book"),</math>  <math>(\text{"type", "http://www.w3.org/1999/02</math>  <math>/22-rdf-syntax-ns\#langString"})\}</math></p> <p><math>\sigma(n_3) = \{("value", "Bog"),</math>  <math>(\text{"type", "http://www.w3.org/1999/02</math>  <math>/22-rdf-syntax-ns\#langString"})\}</math></p> <p><math>\sigma(e_1) = \{("type", "http://example.com/Englishtitle")\}</math></p> <p><math>\sigma(e_2) = \{("type", "http://example.com/title")\}</math></p>

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 4	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>ex:List1 ex:contents ("one" "two" "three").</p>	$N = \{n_1, n_2, n_3, n_4, n_5\}$ $E = e_1, e_2, e_3, e_4$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_2, n_3)$ $edge(e_3) = (n_3, n_4)$ $edge(e_4) = (n_3, n_5)$ $\forall i \in \{1, 2, 3, 4, 5\}; lbl(n_i) = \{\text{"Resource"}\}$ $\sigma(n_1) = \{(\text{"url"}, \text{"http://example.com/List1"})\}$ $\sigma(n_2) = \{(\text{"url"}, \text{"bnode://node1g10t4un5x1"}), (\text{"first"}, \text{"one"})\}$ $\sigma(n_3) = \{(\text{"url"}, \text{"bnode://node1g10t4un5x2"}), (\text{"first"}, \text{"two"})\}$ $\sigma(n_4) = \{(\text{"url"}, \text{"bnode://node1g10t4un5x3"}), (\text{"first"}, \text{"three"})\}$ $\sigma(n_5) = \{(\text{"url"}, \text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#nil"})\}$ $\sigma(e_1) = \{(\text{"type"}, \text{"localName(http://example.com/contents)})\}$ $\forall i \in \{2, 3, 4\}; \sigma(e_i) = \{(\text{"type"}, \text{"localName(http://www.w3.org/1999/02/22-rdf-syntax-ns\#rest")})\}$	$N = \{n_1, n_2, n_3, n_4, n_5, n_6, n_7, n_8\}$ $E = \{e_1, e_2, e_3, e_4, e_5, e_6, e_7\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_8, n_1)$ $edge(e_3) = (n_3, n_5)$ $edge(e_4) = (n_1, n_3)$ $edge(e_5) = (n_5, n_6)$ $edge(e_6) = (n_3, n_4)$ $edge(e_7) = (n_5, n_7)$ $lbl(e_2) = \{\text{"http://example.com/contents"}\}$ $\forall i \in \{1, 5, 6\}; lbl_e(e_i) = \{\text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#first"}\}$ $\forall i \in \{3, 4, 7\}; lbl_e(e_i) = \{\text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#rest"}\}$ $\sigma(n_7) = \{(\text{"Kind"}, \text{"IRI"}), (\text{"IRI"}, \text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#nil"})\}$ $\sigma(n_8) = \{(\text{"Kind"}, \text{"IRI"}), (\text{"IRI"}, \text{"http://example.com/List1"})\}$ $\forall i \in \{1, 3, 5\}; \sigma(n_i) = \{(\text{"Kind"}, \text{"Blank"})\}$ $\sigma(n_2) = \{(\text{"Kind"}, \text{"Literal"}), (\text{"Literal"}, \text{"One"})\}$ $\sigma(n_4) = \{(\text{"Kind"}, \text{"Literal"}), (\text{"Literal"}, \text{"two"})\}$ $\sigma(n_6) = \{(\text{"Kind"}, \text{"Literal"}), (\text{"Literal"}, \text{"three"})\}$	$N = \{n_1, n_2, n_3, n_4, n_5, n_6, n_7, n_8\}$ $E = \{e_1, e_2, e_3, e_4, e_5, e_6, e_7\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $edge(e_3) = (n_3, n_4)$ $edge(e_4) = (n_3, n_4)$ $edge(e_5) = (n_5, n_6)$ $edge(e_6) = (n_5, n_7)$ $edge(e_7) = (n_8, n_1)$ $\forall i \in \{7, 8\}; lbl(n_i) = \{\text{"Resource"}\}$ $\forall i \in \{1, 3, 5\}; lbl(n_i) = \{\text{"BlankNode"}\}$ $\forall i \in \{2, 4, 6\}; lbl(n_i) = \{\text{"Literal"}\}$ $\forall i \in \{1, 3, 5\}; lbl(e_i) = \{\text{"DatatypeProperty"}\}$ $\forall i \in \{2, 4, 6, 7\}; lbl(e_i) = \{\text{"ObjectProperty"}\}$ $\sigma(n_7) = \{(\text{"iri"}, \text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#nil"})\}$ $\sigma(n_8) = \{(\text{"iri"}, \text{"http://example.com/List1"})\}$ $\sigma(e_{1,3,5}) = \{(\text{"type"}, \text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#first"})\}$ $\sigma(e_{2,4,6}) = \{(\text{"type"}, \text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#rest"})\}$ $\sigma(e_7) = \{(\text{"type"}, \text{"http://example.com/contents"})\}$



	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 5	<p>@prefix ex: &lt;http://example.com/&gt; .  ex:bob ex:nationality _:c .  _:c a ex:Person.</p>	$N = \{n_1, n_2\}$ $E = e_1$ $edge(e_1) = (n_1, n_2)$ $lbl_n(n_1) = \{\text{"Resource"}\}$ $lbl_n(n_2) = \{\text{"Resource"}, \text{"Person"}\}$ $\sigma(n_1) = \{\{\text{"url"}, \text{"http://example.com/bob"}\}\}$ $\sigma(n_2) = \{\{\text{"url"}, \text{"bnode://genid-e8437ee0b16549e1a53eef561250e4af-c"}\}\}$ $\sigma(e_1) = \{\{\text{"type"}, \text{"localName(http://example.com/nationality)}\}\}$	$N = \{n_1, n_2, n_3\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_2, n_3)$ $edge(e_2) = (n_1, n_2)$ $lbl(e_1) = \{\text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#type"}\}$ $lbl(e_2) = \{\text{"http://example.com/nationality"}\}$ $\sigma(n_1) = \{\{\text{"Kind"}, \text{"IRI"}, \text{"IRI"}, \text{"http://example.com/bob"}\}\}$ $\sigma(n_2) = \{\{\text{"Kind"}, \text{"Blank"}, \text{"Blank"}, \text{"c"}\}\}$ $\sigma(n_3) = \{\{\text{"Kind"}, \text{"IRI"}, \text{"IRI"}, \text{"http://example.com/Person"}\}\}$	$N = \{n_1, n_2, n_3\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $\forall i \in \{1, 3\}; lbl(n_i) = \{\text{"Resource"}\}$ $lbl(n_2) = \{\text{"BlankNode"}\}$ $\forall i \in \{1, 2\}; lbl(e_i) = \{\text{"ObjectProperty"}\}$ $\sigma(n_1) = \{\{\text{"iri"}, \text{"http://example.com/bob"}\}\}$ $\sigma(n_3) = \{\{\text{"iri"}, \text{"http://example.com/Person"}\}\}$ $\sigma(e_1) = \{\{\text{"type"}, \text{"http://example.com/nationality"}\}\}$ $\sigma(e_2) = \{\{\text{"type"}, \text{"http://www.w3.org/1999/02/22-rdf-syntax-ns\#type"}\}\}$

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 6	<pre>@prefix ex: &lt;http://example.com/&gt; . ex:Graph1 { ex:Monica ex:name "Monica" . ex:Monica ex:homepage &lt;http://www.Monicahompage.org&gt; . ex:Monica ex:hasSkill ex:Management } ex:Graph2 { ex:Monica rdf:type ex:Person . ex:Monica ex:hasSkill ex:Programming }.</pre>	$N = \{n_1, n_2, n_3, n_4\}$ $E = e_1, e_2, e_3$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $edge(e_3) = (n_1, n_4)$ $lbl(n_1) = \{"Resource", "Person"\}$ $\forall i \in \{2, 3, 4\}; lbl(n_i) = \{"Resource"\}$ $\sigma(n_1) = \{"url", "http://example.com/Monica",$ $\{"name", "Monica"\}$ $\sigma(n_2) = \{"url", "http://www.Monicahompage.org"\}$ $\sigma(n_3) = \{"url", "http://example.com/Management"\}$ $\sigma(n_4) = \{"url", "http://example.com/Programming"\}$ $\sigma(e_1) = \{"type,$ $\"localName(http://example.com/homepage)"\}$ $\forall i \in \{2, 3\}; \sigma(e_i) = \{"type,$ $\"localName(http://example.com/hasSkill)"\}$	Parsing error	Not supported.
Case 7	<pre>@prefix ex: &lt;http://example.com/&gt; . ex:alice a ex:Artist . ex:alice a ex:Author .</pre>	$N = \{n_1\}$ $E = \emptyset$ $lbl_n(n_1) = \{"Resource", "Author", "Artist"\}$ $\sigma(n_1) = \{"url", "http://example.com/alice"\}$	$N = \{n_1, n_2, n_3\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $\forall i \in \{1, 2\}; lbl(e_i) = \{"http://www.w3.org/$ $1999/02/22-rdf-syntax-ns\#type"\}$ $\sigma(n_1) = \{"Kind", "IRI",$ $\{"IRI", "http://example.com/alice"\}$ $\sigma(n_2) = \{"Kind", "IRI",$ $\{"IRI", "http://example.com/Artist" \}$ $\sigma(n_3) = \{"Kind", "IRI",$ $\{"IRI", "http://example.com/Author"\}$	$N = \{n_1, n_2, n_3\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $\forall i \in \{1, 2\}; lbl(n_i) = \{"Resource"\}$ $\forall i \in \{1, 2\}; lbl(e_i) = \{"ObjectProperty"\}$ $\sigma(n_1) = \{"iri", "http://example.com/alice"\}$ $\sigma(n_2) = \{"iri", "http://example.com/Artist"\}$ $\sigma(n_3) = \{"iri", "http://example.com/Author"\}$ $\forall i \in \{1, 2\}; \sigma(e_i) = \{"type", "http://www.w3.org$ $/1999/02/22-rdf-syntax-ns\#type"\}$

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
<b>RDF-star</b>				
Case 8	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>«ex:Mary ex:likes ex:Matt»</p> <p>ex:certainty 0.5 .</p>	$N = \{n_1, n_2\}$ $E = \{e_1\}$ $edge(e_1) = (n_1, n_2)$  $\forall i \in \{1, 2\}; lbl(n_i) = \text{"Resource"}$ $\sigma(n_1) = \{("url", "http://example.com/Mary")\}$ $\sigma(n_2) = \{("url", "http://example.com/Matt")\}$ $\sigma(e_1) = \{("type", "localName(http://example.com/likes)", "certainty", 0.5)\}$	$N = \{n_1, n_2\}$ $E = \{e_1\}$ $edge(e_1) = (n_1, n_2)$ $lbl_e(e_1) = \{ "http://example.com/likes" \}$ $\sigma(n_1) = \{("Kind", "IRI"), ("IRI", "http://example.com/Mary")\}$ $\sigma(n_2) = \{("Kind", "IRI"), ("IRI", "http://example.com/Matt")\}$ $\sigma(e_1) = \{("http://example.com/certainty:decimal", 0.5)\}$	Not supported.
Case 9	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>«ex:Mark ex:age 28»</p> <p>ex:certainty 1 .</p>	Triple is ignored.	$N = \{n_1, n_2\}$ $E = \{e_1\}$ $edge(e_1) = (n_1, n_2)$ $lbl_e(e_1) = \{ "http://example.com/age" \}$ $\sigma(n_1) = \{("Kind", "IRI"), ("IRI", "http://example.com/Mark")\}$ $\sigma(n_2) = \{("Kind", "Literal"), ("Literal", 28)\}$ $\sigma(e_1) = \{("certainty", 1)\}$	Not supported.
Case 10	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>ex:bobshomepage ex:source</p> <p>« ex:mainPage ex:writer ex:alice » .</p>	Triple is ignored.	Parsing error	Not supported.

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 11.1	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>« ex:mainPage ex:writer ex:alice »</p> <p>ex:source ex:bobshomepage .</p>	<p>Triple is ignored.</p>	<p><math>N = \{n_1, n_2\}</math></p> <p><math>E = \{e_1\}</math></p> <p><math>edge(e_1) = \{n_1, n_2\},</math></p> <p><math>lbl(e_1) = \{"http://example.com/writer"\}</math></p> <p><math>\sigma(n_1) = \{"Kind", "IRI",</math>  <math>("IRI", "http://example.com/mainPage")\}</math></p> <p><math>\sigma(n_2) = \{"Kind", "IRI",</math>  <math>("IRI", "http://example.com/alice")\}</math></p> <p><math>\sigma(e_1) = \{"http://example.com/source:String",</math>  <math>"http://example.com/bobshomepage"\}</math></p>	<p>Not supported.</p>
Case 11.2	<p>@prefix ex: &lt;http://example.com/&gt; .</p> <p>«ex:alice ex:friend ex:bob»</p> <p>ex:mentionedBy ex:Alex.</p> <p>ex:Alex ex:age 25.</p>	<p>Nested Triple is ignored.</p> <p><math>N = \{n_1\}</math></p> <p><math>E = \emptyset</math></p> <p><math>lbl(n_1) = \{"Resource"\}</math></p> <p><math>\sigma(n_1) = \{"url", "http://example.com/Alex"</math>  <math>("age", 25)\}</math></p>	<p><math>N = \{n_1, n_2, n_3, n_4\}</math></p> <p><math>E = \{e_1, e_2\}</math></p> <p><math>edge(e_1) = \{n_3, n_4\}</math></p> <p><math>edge(e_2) = \{n_1, n_2\}</math></p> <p><math>lbl(e_1) = \{"http://example.com/age"\}</math></p> <p><math>lbl(e_2) = \{"http://example.com/friend"\}</math></p> <p><math>\sigma(n_1) = \{"Kind", "IRI",</math>  <math>("IRI", "http://example.com/alice" )\}</math></p> <p><math>\sigma(n_2) = \{"Kind", "IRI",</math>  <math>("IRI", "http://example.com/bob")\}</math></p> <p><math>\sigma(n_3) = \{"Kind", "IRI" ,</math>  <math>("IRI", "http://example.com/Alex")\}</math></p> <p><math>\sigma(n_4) = \{"Kind", "Literal",</math>  <math>("Literal", 25)\}</math></p> <p><math>\sigma(e_2) =</math>  <math>\{"http://example.com/mentionedBy:String",</math>  <math>"http://example.com/Alex"\}</math></p>	<p>Not supported.</p>

	<b>Triples</b>	<b>Neosemantics</b>	<b>RDF-Star Tools</b>	<b>RDF2PG</b>
Case 12.1	<pre>@prefix ex: &lt;http://example.com/&gt; . @prefix rdf: &lt;http://www.w3.org/1999/02/22-rdf-syntax-ns#&gt; .  « ex:mainPage ex:writer ex:alice » rdf:type ex:bobshomepage .</pre>	Triple is ignored.	<pre><math>N = \{n_1, n_2\}</math> <math>E = \{e_1\}</math> <math>edge(e_2) = (n_1, n_2)</math> <math>lbl(e_1) = \{ "http://example.com/writer" \}</math> <math>\sigma(n_1) = \{ ("Kind", "IRI"), ("IRI", " http://example.com/mainPage") \}</math> <math>\sigma(n_2) = \{ ("Kind", "IRI"), ("IRI", "http://example.com/alice" ) \}</math> <math>\sigma(e_1) = \{ ("http://www.w3.org/1999/02/22-rdf-syntax-ns#type:String", (" http://example.com/bobshomepage")) \}</math></pre>	Not supported.
Case 12.2	<pre>@prefix ex: &lt;http://example.com/&gt; . @prefix rdf: &lt;http://www.w3.org/1999/02/22-rdf-syntax-ns#&gt; .  «ex:lara rdf:type ex:writer » ex:owner ex:Journal.</pre>	Triple is ignored.	<pre><math>N = \{n_1, n_2\}</math> <math>E = \{e_1\}</math> <math>edge(e_2) = (n_1, n_2)</math> <math>lbl(e_1) = "http://www.w3.org/1999/02/22-rdf-syntax-ns#type"</math> <math>\sigma(n_1) = \{ ("Kind", "IRI"), ("IRI", "http://example.com/lara") \}</math> <math>\sigma(n_2) = \{ ("Kind", "IRI"), ("IRI", "http://example.com/writer") \}</math> <math>\sigma(e_1) = \{ ("http://example.com/owner:String", "http://example.com/Journal") \}</math></pre>	Not supported.

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 13	<pre>@prefix ex: &lt;http://example.com/&gt; . «ex:Steve ex:position "CEO"» ex:mentionedBy ex:book» ex:source ex:journal.</pre>	Triple is ignored.	Parsing error	Not supported.
Case 14.1	<pre>@prefix ex: &lt;http://example.com/&gt; . ex:college_page ex:subject   "Info_Page"; ex:subject "aau_page" .</pre>	$N = \{n_1\}$ $E = \emptyset$ $lbl(n_1) = \{"Resource"\}$ $\sigma(n_1) = \{"url",$ $"http://example.com/college\_page" \}, ("subject",$ $\{"aau\_page", "Info\_Page"\})\}$	$N = \{n_1, n_2, n_3\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $\forall i \in \{1, 2\}; lbl(e_i) =$ $\{"http://example.com/subject"\}$ $\sigma(n_1) = \{"Kind", "IRI", ("IRI",$ $"http://example.com/college\_page")\}$ $\sigma(n_2) = \{"Kind", "Literal",$ $("Literal", "Info\_Page")\}$ $\sigma(n_3) = \{"Kind", "Literal",$ $("Literal", "aau\_page")\}$	$N = \{n_1, n_2, n_3\}$ $E = \{e_1, e_2\}$ $edge(e_1) = (n_1, n_2)$ $edge(e_2) = (n_1, n_3)$ $lbl(n_1) = \{"Resource"\}$ $\forall i \in \{1, 2\}; lbl(n_i) = \{"Literal"\}$ $\forall i \in \{1, 2\}; lbl(e_i) = \{"DatatypeProperty"\}$ $\sigma(n_n) = \{"iri",$ $"http://example.com/college\_page"\}$ $\forall i \in \{1, 2\}; \sigma(e_i) = \{"type",$ $"http://example.com/subject"\}$ $\sigma(n_2) = \{"value", "Info\_Page"\}$ $\sigma(n_3) = \{"value", "aau\_page"\}$

	Triples	Neosemantics	RDF-Star Tools	RDF2PG
Case 14.2	<pre>@prefix ex: &lt;http://example.com/&gt; . «ex:Mary ex:likes ex:Matt»   ex:certainty 0.5 . «ex:Mary ex:likes ex:Matt»   ex:certainty 1 .</pre>	<pre>N = {n1, n2} E = {e1} ∀i ∈ {1, 2}; lbl(n<sub>i</sub>) = {"Resource"} σ(n<sub>1</sub>) = {"url", "http://example.com/Mary" } σ(n<sub>2</sub>) = {"url", "http://example.com/Matt" } σ(e<sub>1</sub>) = {"type", localName(http://example.com/likes)}, ("certainty", 1)}</pre>	<pre>N = {n1, n2} E = {e1} edge(e<sub>1</sub>) = (n<sub>1</sub>, n<sub>2</sub>) lbl(e<sub>1</sub>) = {"http://example.com/likes"} σ(n<sub>1</sub>) = {"Kind", "IRI"}, ("IRI", "http://example.com/Mary")} σ(n<sub>2</sub>) = {"Kind", "IRI"}, ("IRI", "http://example.com/Matt")} σ(e<sub>1</sub>) = {"http://example.com/certainty:decimal", 1}</pre>	Not supported.
Case 15.1	<pre>@prefix ex: &lt;http://example.com/&gt; . «ex:Mary ex:likes ex:Matt»   ex:certainty 0.5 . «ex:Mary ex:likes ex:Matt»   ex:source "text" .</pre>	<pre>N = {n1, n2} E = {e1} ∀i ∈ {1, 2}; lbl(n<sub>i</sub>) = {"Resource"} σ(n<sub>1</sub>) = {"url", "http://example.com/Mary" } σ(n<sub>2</sub>) = {"url", "http://example.com/Matt" } σ(e<sub>1</sub>) = {"type", localName(http://example.com/likes)}, ("certainty", 1), ("source", "text")}</pre>	<pre>N = {n1, n2} E = {e1} edge(e<sub>1</sub>) = (n<sub>1</sub>, n<sub>2</sub>) lbl(e<sub>1</sub>) = {"http://example.com/likes"} σ(n<sub>1</sub>) = {"Kind", "IRI"}, ("IRI", "http://example.com/Mary")} σ(n<sub>2</sub>) = {"Kind", "IRI"}, ("IRI", "http://example.com/Matt")} σ(e<sub>1</sub>) = {"http://example.com/certainty:decimal", 0.5}, {"http://example.com/source:string", "text"}</pre>	Not supported.

	<b>Triples</b>	<b>Neosemantics</b>	<b>RDF-Star Tools</b>	<b>RDF2PG</b>
Case 15.2	<pre>@prefix ex: &lt;http://example.com/&gt; . «ex:Mary ex:likes ex:Matt»   ex:certainty 0.5 . ex:Mary ex:likes ex:Matt .</pre>	<pre><math>N = \{n_1, n_2\}</math> <math>E = \{e_1\}</math> <math>\forall i \in \{1, 2\}; lbl(n_i) = \{"Resource"\}</math> <math>\sigma(n_1) = \{"url",</math> <math>\text{"http://example.com/Mary"} \}</math> <math>\sigma(n_2) = \{"url",</math> <math>\text{"http://example.com/Matt"} \}</math> <math>\sigma(e_1) = \{"type",</math> <math>localName(\text{http://example.com/likes}),</math> <math>\text{"certainty"}, 0.5\}</math></pre>	<pre><math>N = \{n_1, n_2\}</math> <math>E = \{e_1\}</math> <math>edge(e_1) = (n_1, n_2)</math> <math>lbl(e_1) =</math> <math>\{\text{"http://example.com/likes"}\}</math> <math>\sigma(n_1) = \{"Kind", "IRI",</math> <math>\text{"IRI", "http://example.com/Mary"}\}</math> <math>\sigma(n_2) = \{"Kind", "IRI",</math> <math>\text{"IRI", "http://example.com/Matt"}\}</math> <math>\sigma(e_1) =</math> <math>\{\text{"http://example.com/certainty:decimal"}, 0.5\}</math></pre>	Not supported.